

ABSTRACT

A virtual local area network(VLAN) data switching method uses an address resolution protocol(ARP) packet in VLAN constructed with one internet protocol(IP) subnet. This is achieved by making a source host broadcast an ARP request packet, making a Proxy ARP server prepare to transmit a virtual ARP request packet wherein the Proxy ARP server receives the ARP request packet, and making a destination host transmit an ARP response packet in direct to the source host through a switching unit wherein the destination host receives the virtual ARP request packet. Data transfer delay time for the data exchanged between different VLANs as well as the router load occurring in handling the traffic between VLANs are reduced, so that data handling performance for high-capacity multimedia data transferred on VLANs is improved.